

PATENT DISCLOSURE REQUIREMENTS IN STANDARD SETTING ORGANIZATIONS

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Note: The cases have been extensively edited and reformatted. Some citations and footnotes have been removed without notice. Other deletions are indicated by ellipses. All bold emphasis is my own {My comments are in brackets. – MS}

INTRODUCTION

Ming Shui

A Standard-Setting Organization (“SSO”) operates to create industry standards in order to ensure that devices are compatible with each other. In the context of emerging technologies, this gives consumers reassurance that parts from different manufacturers can be used interchangeably within a particular piece of equipment. The Joint Electron Devices Engineering Council (“JEDEC”) is one such organization. One of JEDEC’s committees is responsible for setting standards for random access memory used in computers.

JEDEC’S PATENT POLICY

JEDEC Manual of Organization and Procedure, Publication JM21-L, July 2002

{ The JEDEC manual is the governing document for conduct at JEDEC meetings and also describes policies that members are required to adhere to. Note how the patent policy at issue seems rather short compared to what might be expected when conducting a legal transaction. – MS }

Section 8 Legal Guidelines

8.2 Reference to patented products in JEDEC standards and publications

JEDEC standards and nonproduct registrations... that require the **use of patented items** should be **considered with great care**. (For the purpose of this policy, the term “patented items” **includes items and processes for which a patent has been applied** [sic].) While there is **no restriction** against drafting a proposed standard in terms that include the use of a patented item if **technical reasons justify** the inclusion, committees should **avoid standardization** that refers to a product on which there is a known patent **unless all the relevant technical information covered by the patent is known** to the formulating committee, subcommittee, or task group.

If the committee member indicates that the standard requires the use of patented items, then the committee chairperson must receive a **written assurance** from the organization holding rights to such patents that a **license will be made available** to applicants desiring to implement the standard **either without compensation or under reasonable terms and conditions that are demonstrably free of any unfair discrimination**.

Additionally, when a known patent item is referred to in a JEDEC standard, a cautionary note, as outlined in this document, shall appear in the JEDEC standard.

The following notice shall be included inside the front cover of all JEDEC documents or publications in which patents are or may be involved:

“The user’s attention is called to the possibility that compliance with this document may require use of an invention covered by patent rights.

“By publication of this document, no position is taken with respect to the validity of this claim or of any patent rights in connection therewith. The patent holder has, however, filed a statement of willingness to grant a license under these rights on reasonable nondiscriminatory terms and conditions to applicants desiring to obtain such a license. Details may be obtained from the publisher.”

In addition, a footnote should be included on each page that has a reference to a patented item as follows:

“Compliance with this section of the document requires the use of patent No. XXXXXXXX, XXXX”

or

“The formulating committee believes that a patent covering elements involved in this section has been applied for. The applicant, XYZ Association, has agreed to (license without royalty) (license under reasonable terms demonstrably free of discrimination).”

8.3. Committee responsibility concerning intellectual property

The chairperson of any JEDEC committee must call to the attention of all those present ... the **obligation of all participants** to inform the meeting of any knowledge they may have of any patents, or pending patents, that might be involved in the work they are undertaking. Additionally, all participants must be asked to read the statement on the back of each JEDEC sign-in/attendance roster; see Annex B [See MS 1.107] for patent policy application guidelines.

Annex B

Patent policy application guidelines

B.1 Committee **discussion** of pending or existing patents is a **permissible** activity and is

encouraged when the committee feels that the patented item or process **represents the best technical basis** for a standard.

B.2 Discussion of a pending or existing patent does not constitute an acknowledgment of the validity of the patent, because validity is based on prior art and determination of who first made the invention or applied for the patent. The committee's concern is only with the technical merits of the patent and whether the technical proposal is a sound basis for standardization.

B.3 By its terms, the JEDEC patent policy applies with **equal force** to situations involving:

- a) the **discovery of patents** that may be required for use of a standard subsequent to its adoption, and
- b) the **initial issuance** of a patent after the adoption of a standard.

Once disclosure is made, the **holder is obligated** to provide the same assurances to EIA/JEDEC as are required in situations where patents exist or are known **prior to approval** of a proposed standard.

Thus, if notice is given of a patent that may be required for use of an **already approved** JEDEC standard, a standards developer may wish to make it clear to other standards-making participants that the JEDEC procedures require the patent holder to provide the assurances contained in the patent policy or **suffer the withdrawal** of JEDEC's approval of the standard as a JEDEC standard.

RAMBUS LITIGATION

318 F.3D 1081 (Fed. Cir. 2003)

RAMBUS INC., v. INFINEON TECHNOLOGIES

[Before J. RADER, J. BRYSON and J. PROST; Dissent by PROST]

Timeline

April 1990: Rambus files its patent application, 07/510,898, for Dynamic Random Access Memory (DRAM, pronounced "Dee-Ram").

December 1991: Rambus attends a JEDEC meeting as a guest

February 1992: Rambus officially joins JEDEC

1992-1993: JEDEC works on and adopts a standard for synchronous DRAM (SDRAM, pronounced "Ess-Dee-Ram")

Sept 1993: Rambus disclosed its issued patent, 5,243,703 for RDRAM (Rambus DRAM which is for all intents and purposes DRAM).

December 1995: Rambus attends its last JEDEC meeting.

June 1996: Rambus officially withdraws from JEDEC.

December 1996: JEDEC begins work on double data rate SDRAM (DDR-SDRAM). The standard incorporates four technologies that had been discussed in general before Rambus's withdrawal.

Feb. 1997-Feb. 1999: Rambus files for additional patents as a divisional/continuation of the 07/510,898 application. These patents were eventually issued as: 5,954,804, 5,953,263, 6,034,918, 6,032,214.

2000: JEDEC adopts and publishes the DDR-SDRAM standard.

Late 2000: Rambus sues Infineon for infringement of the four patents filed between 1997 and 1999.

Rambus alleged infringement of a total of 57 claims in the four patents.

Infineon counterclaims that Rambus committed fraud by not disclosing to JEDEC its patent and patent applications related to SDRAM and DDR-SDRAM standards.

The district court granted JMOL of noninfringement in favor of Infineon. The jury found Rambus committed fraud during SDRAM and DDR-SDRAM standardization process. Infineon was also awarded attorney's fees. Rambus moved for JMOL on the fraud claims or alternatively for a new trial. The district court denied the JMOL motion on the SDRAM, but granted on the DDR-SDRAM. The court also denied the motion for a new trial. Both parties appealed to the Federal Circuit.

Rambus appeals the denial of its JMOL motion of no fraud on the SDRAM and denial of a new trial. Infineon cross-appeals on the grant of JMOL on the DDR-SDRAM (and the court's refusal to enjoin pending foreign suits, irrelevant to this topic.)

{The claim construction and technologies are largely irrelevant to the discussion and have been edited out. - MS} ***

JEDEC's Policy

The language of these policy statements actually **does not impose any direct duty** on members. While the policy language advises

JEDEC as a whole to avoid standards "calling for the use of" a patent and the manual obligates the chairperson to remind members to inform the meeting of any patents or applications relevant to the work of the committee, this court finds no language -- in the membership application or manual excerpts -- **expressly requiring members to disclose information. There is no indication that members ever legally agreed to disclose information.**

Nevertheless, because JEDEC members treated the language of [Section 8.2, see MS 1.37] as imposing a disclosure duty, this court likewise **treats this language as imposing a disclosure duty.** Assuming such a duty, however, the directive to the chairperson was not intended as a statement of the duty, but as a requirement on the chairperson to point members to the duty. [Section 8.2] prohibited standards that "call for use of a patented item or process" and encouraged disclosure of information "covered by the patent or pending patent." It was that language that the chairperson was instructed to show members to inform them of their duty. That language links the disclosure duty to patents or applications whose claims cover the proposed JEDEC standard. Further, the JEDEC policy permitted adoption of a standard covered by a patent if the claimed technology was available under reasonable license terms. Thus, JEDEC's policy identifies the duty to disclose based on the scope of claimed inventions that would cover any standard and cause those who use the standard to infringe.

Although the JEDEC policy does not use the language "related to," the **parties consistently agree that the JEDEC policy language requires disclosure of patents** "related to" the standardization work of the committee. Infineon, however, argues this language also requires disclosure of patent applications "related to" the committee's work. While both parties repeatedly treat the "related to" language as coextensive with the policy language, the parties differ in their interpretation of "related to." **Rambus** argues that "related to" **means patents that read on or cover the standard.** Although advocating a **"more is better"** interpretation, the necessary implication of Infineon's arguments also is that whether a patent or application is "related to" the standard **depends** on the **claims** of the patent or application.

Rambus disclosed the '703 patent in September 1993. JEDEC also learned of Rambus's WIPO application at the same meeting. Infineon argues that the '703 patent

disclosed to JEDEC did not "relate to" the SDRAM standard, but that **other undisclosed applications did "relate to"** the SDRAM standard. Additionally, Mr. Meyer, Infineon's JEDEC representative, testified that he read the '703 patent and the WIPO application and concluded that they did not "relate to" the SDRAM standard. This conclusion is telling because the written description and drawings of the undisclosed patents and applications are identical to the disclosed '703 patent. The only material difference between the disclosed '703 patent and the undisclosed patents and applications appears in the claims. Accepting, as the jury also must have, Infineon's argument that the **'703 patent is unrelated to the JEDEC standard** [for SDRAM] but that undisclosed patents and applications (with the same written description and drawings) are related to the standard, whether a patent or application is "related to" the standard necessarily must depend on the claims of the patent or application.

Indeed, other Infineon arguments evince that this interpretation of "related to" is correct. For example, Infineon states that the '703 patent "contained claims relating only to . . . RDRAM" and did not indicate that Rambus might file "applications based on the same specification, but with SDRAM-related claims." Accepting Infineon's arguments, again as the jury must have, the necessary implication of those arguments is that "related to" -- and thus the disclosure duty -- focuses on the claims.

Infineon's witnesses also imparted this meaning to the disclosure duty. Mr. **Gordon Kelley, committee chairman** for JC-42.3 {the committee that discussed the xDRAM standards -- MS} and IBM's JEDEC representative, testified:

Q. Under what circumstances would a patent need to be disclosed to JEDEC?

A. If a member representing a company . . . is aware of a patent that their company holds that reads to or applies to a patent or patent claims or a [sic] application of patent or patent claims, then it is the obligation of that member to bring that information to the committee.

Q. And what do you mean by reads to or applies to?

A. That the patent - that if you exercised the **design** or **production** of the component that was being standardized would **require** the use of that patent.

In later testimony Mr. Kelley reemphasized the role of the claims in the disclosure duty, stating:

5 It **violates** the JEDEC policy . . . of notifying the committee when there **are patents issued** that have - that **read on or apply directly** to the activities of a standards process **without notifying the committee**.

10 When asked what information should be disclosed to satisfy the disclosure requirement, Mr. Kelley responded:

15 In my case and I think in most cases I would paraphrase what I understood the claims of the patent or patent application to be. I never actually brought patents and distributed them. . . . I always felt it was the responsibility of the companies if I identified a patent for them to get the information. But I would paraphrase the claims as I understood them and why or how they applied to the proposal subject.

25 [Mr. Meyer, Infineon's JEDEC representative, testified similarly.] ***

[When does the duty to disclose arise?]

30 Infineon's arguments and Infineon's witnesses provide evidence of the members' understanding of the JEDEC policy. Both indicate that the relevant disclosure duty hinges on whether the issued or pending claims are needed to practice the standard. This construction accords with the primary JEDEC goal of adopting open standards that can be practiced without unreasonable license fees or terms. Infineon provides no evidence that the policy required (or that JEDEC members understood the policy to require) disclosure of patents and applications not necessary to practice the standard. On this record, a reasonable jury could find only that the **duty to disclose** a patent or application arises when a license under its claims **reasonably might be required to practice the standard**.

50 To the extent Infineon may argue that the duty to disclose also encompasses situations where an application describes (but does not claim) technologies under discussion at JEDEC, this court notes that Rambus disclosed the '703 patent and thus satisfied such a construction of the duty. With disclosure of the '703 patent, duty to disclose arises. This inquiry will show whether Rambus participated in JEDEC

55 JEDEC had the written description for all the undisclosed patents and applications. Indeed, all JEDEC members had notice of the written description of all of Rambus's patents before adopting its SDRAM standard. The only thing Rambus did not disclose to JEDEC -- and thus the necessary focus of the fraud inquiry -- was the claims in those patents and applications. The **inquiry**, therefore, is **claim-specific** and **standard-specific**. ***

65 This **does not require a formal infringement analysis. Members are not required to perform a limitation-by-limitation comparison or conduct an equivalents analysis**.... Stated another way, there must be some **reasonable expectation that a license is needed to implement the standard**. By the same token, the **disclosure duty does not arise for a claim that recites individual limitations directed to a feature of the JEDEC standard as long as that claim also includes limitations not needed to practice the standard**. This is so because the claim could not reasonably be read to cover the standard or require a license to practice the standard.

80 To hold otherwise would contradict the record evidence and render the JEDEC disclosure duty unbounded. Under such an amorphous duty, any patent or application having a vague relationship to the standard would have to be disclosed. JEDEC members would be required to disclose improvement patents, implementation patents, and patents directed to the testing of standard-compliant devices -- even though the standard itself could be practiced without licenses under such patents. The record contains further evidence suggesting that the JEDEC members did not perceive the disclosure duty to include obligations of that breadth.... If these members perceived the duty to encompass any patent or application with a vague relationship to the JEDEC standard, the record would likely contain a substantially greater number of disclosed patents and applications. Even Infineon's own actions demonstrate that the disclosure duty was not so broad because Infineon itself did not disclose to JEDEC an application on testing SDRAM. Presumably, it did not disclose that application because it was not necessary to practice the SDRAM standard.

105 To weigh the legal sufficiency of the jury verdict, this court also must consider when the proceedings at a time when it had a duty to disclose. The JEDEC policy itself does not state

when a committee member's duty arises. Infineon argues that discussions before formal consideration of a standard trigger the disclosure duty. To the contrary, Mr. Gordon Kelley, the committee chairman and IBM's JEDEC representative, testified that the disclosure duty arose at formal balloting of a proposed standard. Formal ballots include a check box next to a statement certifying that the voter is not aware of any patents involved in the ballot. Mr. Kelley did not testify that the EIA/JEDEC policy required or that members understood the policy to require disclosures before formal balloting. Mr. Kelley's testimony does not support Infineon's position that the disclosure duty arises before formal consideration of a standard.

The other witness Infineon relies on for the position that JEDEC imposes the duty before formal votes is Mr. Reese Brown. Mr. Brown, a JEDEC consultant who edits the standards and maintains the activity log for committee JC-42, testified that the disclosure duty arises only if the "material [being discussed] is described as part of a legitimate proposal that's aimed at a standard." Giving Infineon the benefit of all reasonable inferences, Mr. Brown's testimony at most indicates that the **disclosure duty arises when proposals are aimed at a particular standard**. Infineon proffers no substantial evidence that the disclosure duty applicable to one standard is triggered by discussion of proposals aimed at a different standard. As discussed above, the disclosure inquiry here is claim-specific and standard-specific. Substantial evidence does not support Infineon's position that the duty arises before legitimate proposals are aimed at the standard (i.e., before work formally begins on the standard). The most a reasonable jury could conclude is that the disclosure duty is triggered when work formally begins on a proposed standard.

The record does not show that JEDEC applied the disclosure duty to a member's plans or intentions. The patent policy requires disclosure of certain "patents or pending patents" -- not disclosure of a member's intentions to file or amend patent applications. Indeed, Mr. Kenneth McGhee, secretary of committee JC-42, Mr. John Kelly, and Mr. Meyer all testified that the **policy did not address a member's intentions to file future patent applications**. Mr. Kelly further testified that because antitrust laws discourage direct competitors from discussing market-driving innovations, members

55 "were not supposed to reveal their future plans." Further, Mr. Meyer testified that the disclosure duty did not require members to disclose plans to modify applications. Thus, the record supports only the conclusion that a member's intentions to file or amend applications do not fall within the scope of JEDEC's disclosure duty.

In this case there is a staggering lack of defining details in the EIA/JEDEC patent policy. When direct competitors participate in an open standards committee, their work necessitates a written patent policy with clear guidance on the committee's intellectual property position. A policy that does not define clearly what, when, how, and to whom the members must disclose does not provide a firm basis for the disclosure duty necessary for a fraud verdict. Without a clear policy, members form vaguely defined expectations as to what they believe the policy requires -- whether the policy in fact so requires or not. JEDEC could have drafted a patent policy with a broader disclosure duty. It could have drafted a policy broad enough to capture a member's failed attempts to mine a disclosed specification for broader undisclosed claims. It could have. It simply did not. ***

[The court then goes on to find that substantial evidence did not support the jury's verdict that Rambus breached the duty to disclose during the SDRAM and DDR-SDRAM standardization.] ***

PROST, J. Dissenting

According to the majority, "a reasonable jury could only find that the duty to disclose a patent or application arises when a license under its claims reasonably might be required to practice the standard." The majority then proceeds to apply this standard by determining de novo whether Rambus had any pending or issued claims while it was a member of JEDEC that read on the final JEDEC standard.

I believe that the evidence in this case supports a broader duty than the one applied by the majority. According to the October 1993 JEDEC Manual of Organization and Procedure, section 9.3.1. {Current section 8.3. See MS 1.95} titled "Committee Responsibility Concerning Intellectual Property...." [Excerpt from section deleted.]

In my opinion, this portion of the manual clearly states the duty of disclosure required by all members of JEDEC, which is different from

the duty applied by the majority in at least two in" the standard is **much broader** than requiring disclosure of only claims reading on the standard. **Second**, the majority applies the duty to the final standard adopted by JEDEC, whereas the manual **requires disclosure** based on the "work they are undertaking," which is much more expansive than the final, completed standard resulting from the work undertaken. The majority's comparison of pending claims to the final standard does not take into account the possibility that, during the course of its work, the committee considers, debates, rejects and amends various proposals as the standard evolves.

Documents and witness testimony show that the members of JEDEC understood the JEDEC policy to require that its members disclose patents and pending patent applications that might be involved in the standard setting process. For example, during the development of the SDRAM standard, the committee discussed and then voted on many different features. The ballots for these votes stated that "if anyone receiving this ballot is aware of patents involving this ballot, please alert the Committee accordingly during your voting response." One witness interpreted the language on the voting ballot as requiring disclosure of "intellectual property that is related to that ballot or to the content of that ballot." Similarly, the committee's stated "patent tracking" procedure included "reviewing items identified as of potential patent interest at each meeting." In addition, the minutes from the December 6, 1995, committee meeting state that "MOSAID noted that they had a pending patent on DLL and noted that it was a particular implementation and may not be required to use the standard." **Gordon Kelley**, the committee chairman and IBM's JEDEC representative, testified about Rambus's particular kind of conduct and whether it violated JEDEC's policies:

Q. As the chairman at least during some period of time of some of the relevant JEDEC committees that we've talked about here today, did you think it was - or did you have any understanding as to whether it was **acceptable practice** for a JEDEC member to attend JEDEC meetings and then write claims to cover proposals in the JEDEC standards without disclosing those - those patent applications or patents that contain those claims? ***

A. This letter in January of 1994 to Buf Slay I think documents my position on that, that that cannot be allowed. It's in **complete violation of**

respects. **First**, the statement "might be involved **JEDEC requirements of openness and fairness with regard to notification of patents and pending patents.**"

In addition, **John Kelly**, EIA's general counsel and the person responsible for implementing the EIA/JEDEC patent policy, testified that the JEDEC patent policy "**required the early disclosure of patents and patent applications that are or may be required to comply with the standard**"

Willibald Meyer, Infineon's JEDEC representative, likewise testified to a disclosure duty that was not limited to claims that read on the standard:

Q: The question is, sir, what was your understanding of the JEDEC patent policy in July, June and July 1992?

A: The understanding was that the holders of a patent or an application should make the committee aware in the case that they were aware of that, the application of the patent which they held or had filed was in relationship to the work in JEDEC that we were doing.

Evidence also shows that even Rambus understood that it was required to disclose something more than only those claims reading on the SDRAM standard. Rambus timely disclosed only one of its patents to JEDEC: the '703 patent. However, Rambus admitted that the '703 patent "did not relate to JEDEC's SDRAM work but [was] directed to the implementation of Rambus'[s] RDRAM products." Rambus's compulsion to disclose this one patent is evidence that it broadly interpreted its duty of disclosure (although at the time, Rambus allegedly thought its duty was limited to issued patents, not pending applications).

Certainly the majority opinion has identified testimony that can be interpreted to support its framing of the duty to disclose. However, the majority has applied the duty as being limited to the issue of whether claims read on the final standard, which is not consistent with the broader duty stated in the JEDEC manual or the other evidence identified above. Having identified substantial evidence supporting a sufficiently broad duty of disclosure to support the jury's verdict, our job is done. The applicable standard of review does not permit us to go further, reweighing the evidence and determining de novo that the duty should be defined or applied in a different manner. I respectfully

submit that the evidence described above compels us to conclude that there was sufficient evidence for the jury to find that Rambus had a duty to disclose pending and issued patents that might be involved in the development of the SDRAM standard, as stated in section [8.3] of the JEDEC manual.

The majority rejects the plain meaning of this section of the JEDEC manual for two reasons. First, the majority interprets Appendix [B], not section [8.3], as giving rise to the duty to disclose. Second, according to the majority, a plain reading of section [8.3] of the manual would "render the JEDEC disclosure duty unbounded. Under such an amorphous duty, any patent or application having a vague relationship to the standard would have to be disclosed." I disagree with each of these reasons for not following the duty of disclosure stated in section [8.3] of the JEDEC manual.

With respect to the majority's first reason for rejecting the plain language of the manual, the majority relies on various testimony about the JEDEC "patent policy" to arrive at the conclusion that the members of JEDEC "treated the language of Appendix B as imposing a disclosure duty." This conclusion is contrary to testimony at trial showing that members of JEDEC understood Appendix B to describe the procedures to be applied once JEDEC has learned of a relevant patent, which is different from the requirement for disclosing relevant patents and patent applications. For example, **Reese Brown** testified that the "patent policy" has two distinct components:

Q. Can you tell me what the patent policy is?

A. Well, there are **two** parts. **One** that says that whenever material comes up in the committee for **discussion** and for **voting**, any members who are aware of any patent position or potential patent positions on the material should and are **obligated** to reveal that to the committee at that time. . . . The **other** portion of the policy has to do with if a **specific patent material** has been - or patent positions have been identified in connection with a proposal that is in the process of being approved for a ballot of standardization....

John Kelly's testimony likewise distinguished between the disclosure requirement and the requirement for obtaining "assurances" from a patentee once JEDEC has learned of a

relevant patent. **Gordon Kelley** had a similar view:

Q. Between 1991 and 1996 what do you believe that patent policy in JEDEC to be?

A. The stated policy was that, first of all, all member companies would notify the committee of patents that they were aware of that applied to a proposed standard. And another requirement was that they would agree that their licensing practice to all other member companies of JEDEC would be all companies would be licensed, excepting none, and that the license would be either free or offered at reasonable rates, without exception.

Later in his testimony, Mr. Kelley outright rejected the theory that the disclosure duty comes from the language describing what is to happen when JEDEC learns of a relevant patent:

Q. About one line down at the end of the sentence it starts with the word if, if the committee determines that the standard requires the use of patented items, then the committee chairperson must receive a written assurance, and it continues.

A. Yes.

Q. Sir, does that language accurately reflect your understanding of when a patent needed to be disclosed?

A. No. The language that I'm seeing here refers to a patent issue that has been raised in the committee. . . .

Thus, according to the understanding of these witnesses, the language of Appendix [B] is only one part of the "patent policy" - the part that describes the appropriate procedures that the committee must apply once a disclosure has been made. Appendix [B] does not describe the second part of the patent policy: the obligation to disclose relevant patents and patent applications, as stated in section [8.3] of the JEDEC manual. Moreover, the testimony quoted above from Reese Brown specifically refers to the duty to disclose when voting. The voting ballot parrots the language of section [8.3], requiring members to disclose patents and applications "involving the ballot." The ballot therefore confirms the separate duty of disclosure as stated in section [8.3], not Appendix [B]. ***

Instead of creating a duty that it believes JEDEC should have adopted, the court need only determine that there was sufficient evidence of what the duty is such that a jury could apply the duty to the conduct at issue and determine

whether the duty was violated. In my opinion, there was sufficient evidence for the jury to have concluded that the duty to disclose was stated by the plain text of section [8.3] of the JEDEC manual, requiring the disclosure of patents and pending applications that might be involved in the work of the committee.

Given the duty to disclose as stated in section [8.3] of the JEDEC manual, the next issue is whether substantial evidence supports a finding that Rambus failed to disclose pending and issued patents that might be involved in the development of the SDRAM standard. In my opinion, there is an abundance of such evidence.

***[Prost gives relevant excerpts from the trial record detailing evidence of Rambus copying the proposed standard in the patent application and claims.]

In my opinion, this evidence, which is just a portion of what Infineon presented at trial, is **more than sufficient** to support the finding that Rambus did in fact have pending patent claims related to, and even reading on, aspects of the SDRAM standard. The **majority**, however, **requires a different kind of proof than the clear admissions Rambus made through witness testimony and internal documents**. By limiting the application of the duty to disclose to the issue of whether pending claims read on the final standard, the **majority requires an element-by-element** comparison of the limitations of a pending claim to the text of the SDRAM standard. Infineon did not call an expert witness at trial to make such a comparison; nor does it appear that Rambus presented a witness to prove the negative - that none of its pending claims ever read on any feature of the SDRAM standard discussed at the JEDEC meetings. ***

Thus, in my opinion, substantial evidence supports a finding that Rambus failed to disclose pending patent applications that might be involved in the SDRAM standard. Rambus made numerous, unambiguous admissions to that effect and failed to prove anything to the contrary at trial.

This case is not an easy one, and I appreciate the majority's efforts to find a bright line rule for what constitutes fraud in the context of standard setting organizations. But the majority's application of its rule, that only claims reading on the standard need be disclosed, is not the JEDEC standard. JEDEC's disclosure policy required its members to disclose patents and pending applications that "might be involved in the work they are undertaking." While the majority rejected this standard as unbounded, **nothing required JEDEC to formulate its**

policy with precision and clarity. And, while the majority may believe that JEDEC's "might be involved" standard is impossibly amorphous, the majority's restatement of the JEDEC policy might prove **impossibly complex**. The majority's application of its rule **arguably requires a *Markman* claim construction, application of the doctrine of equivalents, a *Festo* analysis, and perhaps even a *Johnson & Johnston* analysis before anyone can say for sure whether a claim reads on a standard**. As a result, an action for fraud will become more a federal patent case than a case arising under state law.

In any event, as I read the record, there is more than sufficient evidence upon which the jury could have concluded that Rambus had a duty to disclose pending and issued patents that might be involved in JEDEC's development of the SDRAM standard and that Rambus violated that duty. I respectfully submit that the jury's verdict should stand and I would therefore affirm the district court's denial of Rambus's motion for judgment as a matter of law.

OTHER METHODS OF ENFORCEMENT
90 Calif. L. Rev. 1889 (Dec. 2002)
Intellectual Property Rights and Standard-Setting Organizations
Mark A. Lemley

[Professor of Law, School of Law, University of California, Berkeley (Boalt Hall); of counsel, Kecker & Van Nest, San Francisco, California

Lemley uses the abbreviation "SSO" refer to "Standard-Setting Organizations." He first discusses the reasons for standardization and the benefits to society. He then discusses how these SSOs are created and their relationship to IP law. He then presents his data on his study of various SSOs' IP policies.]

Equitable Estoppel

The **most likely** candidate for dealing with a failure to disclose IP rights is the doctrine of **equitable estoppel**. Equitable estoppel applies where "a patentee, through **misleading conduct**, leads the alleged infringer to **reasonably** infer that the patentee does **not intend to enforce** its patent against the alleged infringer. Conduct may include specific statements, action, inaction, or silence where there was an obligation to speak." To use equitable estoppel as a defense to infringement, the infringer must show that it relied on the misleading conduct and will be materially prejudiced if the patent is enforced.

For several reasons, the equitable estoppel with IP owners who fail to disclose their IP rights.

5 **First**, the doctrine does not require affirmatively misleading statements, but also applies to silence in circumstances where there "was a clear duty to speak." Thus, assuming that members of an SSO take on a disclosure
10 obligation as a contractual matter, violating that duty may give rise to estoppel.

Second, the estoppel cases do not require proof of intent to mislead. Rather, the only question is whether the patent owner's "course of
15 conduct reasonably gave rise to an inference" that it would not enforce the patent. Thus, estoppel should apply even in the relatively common case in which a patent owner's failure to disclose was inadvertent or merely negligent, and
20 not part of a scheme to deceive the SSO.

Finally, unlike the limited remedies available in contract cases, proof of equitable estoppel will bar the IP owner from any relief. As a result, IP owners who violate a disclosure
25 obligation - thereby inducing members of an SSO to believe they have no patents covering the standard or will not enforce them - may be precluded from obtaining damages or injunctive relief against those members.

30 **Reasonable and Nondiscriminatory Licensing Obligations and Implied License**

 Equitable estoppel is unlikely to apply to a situation where a patent owner has disclosed the
35 existence of a patent but promised to license it on reasonable and nondiscriminatory terms. A patentee who has made such a promise has not induced others to believe it will not enforce the patent; far from it. The patentee has made an
40 affirmative statement that it intends to enforce the patent, putting the world on notice that they must expect to pay royalties if they are to use the proposed standard....

 Nonetheless, patent law may well limit the
45 ability of a patentee to ignore SSO IP rules requiring licensing on reasonable and nondiscriminatory terms. The most likely theory is a license implied from the patentee's conduct, which I will call an "implied license." Implied
50 license is a doctrine of quasi contract, and depends on the beliefs and expectations of the parties to the sales transaction. It is most commonly applied in cases where the product sold by the patentee isn't itself patented, but is
55 necessary for use in a patented process.... Implied license is ... likely where an IP owner invites a use that would otherwise infringe, for

doctrine is particularly well suited to dealing example, by posting their copyrighted work on the Internet for free download.

60 The last situation is perhaps most analogous to standard setting. If an IP owner agrees to license its patents that cover a standard on reasonable and nondiscriminatory terms, others will assume that they are free to use that standard
65 so long as they pay a reasonable royalty. There may be no express license between the IP owner and any of the users of the standard, but it seems perfectly reasonable to imply one from the conduct of the IP owner. ***

70 While an implied license of this sort may seem superfluous in view of the IP owner's contractual obligations described in the previous Section, there is an important difference between a license under IP law and a contractual
75 obligation to license: the remedy. [T]he remedy for breach of a contractual obligation to license **isn't judicial imposition of a license**, but merely expectation damages resulting from the breach. Those damages are likely to be insufficient to
80 compensate accused infringers and society at large for the losses they will suffer if they are enjoined from using standards once thought open to all. By **contrast**, if a court determines that an IP owner granted a license by virtue of agreeing
85 to be bound by an SSO IP rule, the only remaining questions concern the scope of the license and the royalty rate. The IP owner in that case has only **a contractual claim for a royalty**, not a cause of action for patent infringement that
90 might result in an injunction, treble damages, and attorneys' fees. The practical difference is dramatic.

 I think it is preferable as a policy matter to construe an IP owner's agreement to an SSO IP-licensing requirement as the grant of a license
95 itself, rather than merely a contract with the SSO. Such an approach has several advantages.

First, it ensures that all users of the standard benefit from the license, even if they would be
100 unable to sue for breach of the SSO contract itself. This is what the SSO rules almost certainly intend.

Second, it sharply narrows the scope of the issues that must be litigated in these cases and,
105 relatedly, makes it possible for the SSO to resolve those issues ex ante. SSOs might try to set standards for determining a reasonable royalty in a license agreement; they would presumably have no power to do so if the IP
110 owner retained a right to sue for infringement.

Third, and most importantly, the implied-license approach reduces opportunism by IP

owners. Under the contract approach, IP owners have an incentive to assert claims for patent infringement against users of well-established standards, even if the owners previously agreed to license those patents on reasonable and nondiscriminatory terms. By threatening to prevent use of the standard, they can coerce significantly more than a reasonable royalty from users. Determining that IP owners have already licensed their patents prevents such opportunism.

The license approach may have one rather unfortunate jurisdictional consequence. Because disputes over the terms of a license are questions of state contract law, they will be decided in state rather than federal court. Even if there is an independent basis for federal jurisdiction, contractual disputes over license terms do not arise under [the jurisdictional statute] and so will not go to the Federal Circuit on appeal. This may be troubling, especially to those who see the Federal Circuit as a force for uniformity not only in patent law but also in related cases. But questions involving patent law have never been the exclusive domain of federal courts in general or the Federal Circuit in particular. Some cases always have gone to state courts because the underlying dispute concerned the terms of an agreement, rather than patent infringement. Perhaps standard-setting cases should be no different.

If the jurisdictional question does present a serious problem, one possible solution is for the Federal Circuit to decide that implied, as opposed to express, licenses are questions of federal patent law. This would presumably entail **deciding that the licenses in question were implied in law rather than implied in fact.**

Tort Liability for Nondisclosure of Intellectual Property

While contract and estoppel-based IP theories may help to enforce SSO IP rules against recalcitrant IP owners, both have their shortcomings. Contract provides only weak remedies, especially for violation of a disclosure rule, and estoppel and implied license are at most defenses to be asserted when an SSO member is sued for infringement. SSO members have understandably sought a more robust affirmative claim against IP owners who misrepresent the legal status of a standard. Accordingly, SSO members have turned to two possible tort claims: antitrust and fraud.

Antitrust

Antitrust law is designed to protect the integrity of market competition against attempts to raise prices and reduce output, either by a single firm that dominates the market and excludes competition or by a group of firms that act collectively to coordinate their price and output decisions. In the context of SSO IP rules, an antitrust claim against an IP owner likely will focus on the competitive advantage the IP owner receives by misleading the SSO members into adopting a standard they believe to be free to use, but which in fact is owned by the defendant. In private actions, antitrust claims offer plaintiffs the lure of treble damages and attorney's fees, as well as the possibility of enforcement by federal or state antitrust authorities.

The most likely avenue of antitrust attack against efforts to control the standard-setting process by failure to disclose an IP right is an attempted monopolization claim under section 2 of the Sherman Act.

Attempted monopolization has **three elements:**

- (1) a specific intent to monopolize;
- (2) anticompetitive conduct in furtherance of that intent; and
- (3) a dangerous probability of successful monopolization. n144 Even a full-blown monopolization claim requires proof of conduct "willfully intended" to further the acquisition or maintenance of monopoly power. n145 As a result, market power, anticompetitive conduct, and intent all must be proven to make out an antitrust violation, whether the claim is based on monopolization or attempted monopolization.

[Lemley discusses In re Dell Computer Corp., No. 931-0097 (F.T.C. 1995), in which Dell was accused of misrepresenting its status in order to get a standard adopted. Dell agreed to not assert its rights in a consent decree.

Lemley then provides the factual background in the *Rambus* see MS 2.37]

Misrepresentations can constitute anticompetitive conduct in appropriate circumstances, though by no means do all or even most misrepresentations by a competitor raise antitrust concerns. In the standard-setting context, the theory is that the IP owner's misrepresentation has manipulated the standard-setting process in a way that helps the IP owner achieve market power. Not only does the IP owner end up with exclusive control over the market standard, converting a group standard-

setting process into a de facto one, but it uses the group standard to achieve a dominant position it might not have attained in an open standards competition.

5 Had Rambus or Dell, for example,
announced up front that the standards they were
backing were proprietary, it is unlikely that the
affected industries would have chosen those
standards. [T]he competitive risk is that the
10 misrepresentation will cause an SSO to adopt a
standard it otherwise would have rejected, and
that the adoption of that standard will in turn
confer on the defendant market power it would
not otherwise have obtained. This is a rather long
15 chain of inferences, and each step in the chain
should be elaborated.

First, an antitrust plaintiff must establish
that the SSO would not have adopted the
standard in question but for the
20 misrepresentation or omission. This causation
requirement is needed because the failure to
disclose the existence of IP to an SSO will not
affect the competitive marketplace if the SSO
would have approved the standard if it had
25 known about the IP right. For those SSOs with
no IP policy or disclosure requirement,
misrepresentation should not raise competitive
concerns. Even if it violates some other duty, the
misrepresentation did not cause the adoption of
30 the standard, and therefore presumably did not
contribute to or create market power. Indeed, in
the absence of any affirmative requirement by
the SSO that a party disclose its IP rights, it
probably doesn't even make sense to speak of a
35 failure to disclose as a "misrepresentation" at all.

A separate issue is raised by SSOs that,
notwithstanding their stated policy, have a
history of promulgating standards even when
they are aware that a company owns IP rights in
40 the standard. In that case, the misrepresentation
has not necessarily caused the adoption of the
standard. Given the SSO's willingness to
consider proprietary standards, it is possible that
the organization would have adopted the
45 proposed standard even if its members knew
about the patent rights. Nonetheless, it is also
possible that the SSO would have decided
differently had its members been aware of the
patent.

50 The first step in the causation chain requires
factual inquiry in such a case. In other cases
proof of but-for causation will be easier. If an
SSO flatly refuses to adopt any standard covered
by an IP right, for example, as some open source
55 groups do, it should be apparent that an

intentional failure to disclose the existence of an
IP right affected the outcome of the decision.

Second, the SSO's decision to adopt the
standard must in turn influence the market. Not
60 all or even most standards adopted through an
SSO dominate a relevant market. In only a
limited number of cases will a standard achieve
market dominance or the "dangerous probability"
of successful monopolization needed to sustain
65 an attempted monopolization claim under section
2 of the Sherman Act. Efforts to capture an
industry standard will likely constitute
anticompetitive conduct precisely where those
efforts are likely to threaten monopolization -
70 where the standard being set is likely to
dominate the industry. Even there,
monopolization must result from the
misrepresentation and not merely from owning
the IP right itself. Market dominance will be the
75 necessary result of enforcing a patent on the
standard only in those few cases where the patent
actually confers an economic monopoly. In those
cases in which there is no realistic alternative to
infringing the patent, any misrepresentation to
80 the SSO is likely irrelevant; it is the patent itself
that confers power. Antitrust is more properly
concerned with cases where the IP owner's
control over the market stems from a failure of
information in the market, a failure which the IP
85 owner has induced. Market control is most likely
when the SSO members collectively have a
dominant share of the market, when past
standards the SSO has promulgated have
dominated the market, when standard setting is
90 exclusive (that is, only one standard can be
selected), and when the IP owner is unwilling to
license the undisclosed IP on reasonable and
nondiscriminatory terms. In the absence of some
of these conditions, even if the IP owner's
95 nondisclosure convinces the SSO to accept the
proposed standard, the promulgation of that
standard is less likely to affect competition.

Finally, assuming an antitrust plaintiff can
prove both market power and anticompetitive
conduct that helped acquire or maintain that
power, the plaintiff must prove that the
defendant's failure to disclose its relevant IP
rights was intentional and not an oversight. One
might argue that failure to disclose is
100 problematic regardless of intent. While that
argument may have some force when it comes to
contract and perhaps even IP law, antitrust law
properly requires more. For an IP owner to
violate the antitrust laws and be subject to treble
damages, the law requires willful conduct in an
105 effort to monopolize. Inadvertence does not

suffice. Actual intent to monopolize is difficult to prove, but in some cases it can be inferred from conduct. This inference might be drawn from facts that suggest knowledge of a misrepresentation regarding IP was likely - for instance, where the inventor of the patent is also the person who signed a statement to the SSO. One might also draw an inference of at least reckless indifference from an IP owner's failure to do any investigation, particularly in that small subset of SSOs that impose an obligation to search one's own patent portfolio. In many standard-setting cases, such an inference will be easy to draw.

A court should not be too quick to draw an inference of intent, however, because in many cases deciding whether a patent covers a particular standard will require an individual to construe the meaning of the patent claims. [W]here the evidence is indicative of bad faith, courts should be more willing to infer intent. For instance, based on the facts found by the court in Rambus, it appears that Rambus entered into a course of conduct designed to deceive JEDEC about what patents and pending applications it owned. Similar courses of conduct constitute evidence from which a court can infer intent to monopolize. A court might also infer intent from truthful but misleading conduct, such as failing to fill out the form required by the SSO to affirm that all IP rights have been disclosed. ***

A more serious question is presented when an IP owner decides to withdraw from an SSO altogether rather than disclose its IP interest in a pending standard. Here it is the timing of the withdrawal that is critical. Obviously a company that once belonged to an SSO isn't forever bound to disclose its IP rights to the SSO. At the same time, IP rights that already existed (or for which applications were pending) while the company was a member of the SSO and which cover standards under consideration while the company was a member should generally be understood to fall within the disclosure obligation. A company that strategically withdraws from an SSO to avoid disclosure may create the same sorts of problems that nondisclosure creates, although sometimes the act of withdrawal itself will serve to draw attention to the company's IP portfolio.

The above requirements are fairly stringent. As a result, antitrust liability for failure to disclose will likely be limited to those situations in which nondisclosure both is motivated by a desire to capture market share and is likely to do so. This is probably as it should be. Antitrust is an extreme remedy, and it is properly reserved

for cases in which an IP owner's failure to disclose has significant competitive consequences. Thus, while antitrust can serve as a useful check on abuses of the standard-setting process, it cannot substitute for a general enforcement regime for disclosure rules.

Common Law Alternatives to Antitrust

It is possible that the failure to comply with an SSO bylaw that restricts enforceability of IP rights could constitute fraud or misrepresentation. Fraud is most likely where, as in Dell Computer discussed in the last Section, the IP owner has an obligation to disclose the existence of an IP right and knowingly fails to do so or affirmatively states that none exists. A fraud theory might be a stronger enforcement mechanism for the SSO than contract, in that it offers plaintiffs the possibility of recovering their actual damages. And it may be a less cumbersome tool than an antitrust claim, which requires extensive inquiry into market definition and market power. Further, fraud may reach beyond antitrust law, since members of an SSO could be defrauded to their detriment even in circumstances in which it is unlikely the IP owner could exercise control over a relevant economic market. The Rambus case...was ultimately decided on fraud and not antitrust grounds, for example. ***

DESIGNING OPTIMAL STANDARD-SETTING ORGANIZATION POLICIES

[This portion from a different section from the same Lemley article. The introductory law review drivel for this section has been removed.]

Define the Intellectual Property Rights in Question

Many SSO IP policies apply only to issued patents and do not discuss patent applications. Most policies do not consider whether foreign or only U.S. patents are covered. Still other policies cover patents but not copyrights....

Proposed standards often find their way to an SSO while the technology is still new. Because patents take almost three years on average to issue, it is quite common for members to have patent applications outstanding but no issued patents at the time the SSO votes on the standard. SSOs should deal with this problem up front by making it clear that their IP rules apply to patent applications as well as to issued patents. **Covering pending applications** is especially appropriate for rules that require

licensing on specified terms rather than disclosure. Indeed, it probably makes sense to apply those rules to nascent IP that has not yet even matured into a patent application. Similarly, because most standards in the telecommunications and computer industries are global, it makes sense for SSO rules to cover all patents worldwide, not just patents in the United States.... Failure to specify broad coverage for an IP policy will leave putative IP owners with the power to shut down a standard at some point after it is adopted. It will also leave the true scope of the policy ambiguous, as Rambus pointedly shows. ***

An SSO's first instinct will likely be to bring as many patents as possible within the scope of the policy. This may be a mistake, however. Including unnecessary patents will complicate the disclosure and licensing processes. Members who own IP rights may also exploit the policy. It is a common practice among some IP owners to disclose as many patents as possible to an SSO, both in order to avoid possible liability for nondisclosure and to try to obtain royalty payments. Still other members might drop out of an SSO altogether rather than risk granting blanket licenses to all their IP. **Limiting** the scope of the IP rules so that they cover only essential IP will minimize these problems. It will also help an SSO avoid antitrust scrutiny. In the analogous context of patent pools, the DOJ has looked more favorably upon patent pools that were limited to necessary patents, because they presented less risk of industry-wide collusion.

Once the rights in question are defined, the SSO should endeavor to make **clear to the public** what rights are claimed. The easiest way to do this is to post on the Internet all claims of right respecting a particular standard, as the IETF does. Whether the world will search such a list is another matter. But they should at least be given the opportunity to do so.

Take Process Seriously

SSO IP rules are worth nothing unless they are enforceable. Indeed, unenforceable rules are probably worse than useless because they may create false expectations among members and the public. To **maximize enforceability**, SSOs that go to the trouble of creating rules to control the use of IP rights should make sure that the process is as transparent and as fair as possible. SSOs should treat their IP rules just as they would treat any other contract. Ideally, members should **affirmatively consent** to the SSO's IP rules **in writing**. While affirmative consent may

not be necessary as a matter of contract law, it will strengthen the legal and moral case for later enforcing the rules, and it may be more important for the IP doctrines of implied license and estoppel. At a bare **minimum**, the policy should be **in writing** and should be **distributed** to all members. Requiring members to **certify** that they are **disclosing** or **licensing** any **relevant patents each time they vote** on a standard is also a good idea. Policies should also make their duration clear, and specify what rights a member who wishes to leave the SSO will have to assert its IP against existing, pending, and future standards. ***

Eschew Disclosure-Only Policies

[It appears to be] largely futile to require members to disclose their IP rights without requiring any sort of licensing. While disclosure does give SSOs information about what proprietary rights are out there, that information is notably incomplete. It does not include the IP rights of nonmembers. Because most SSOs do not require their members to search their files for relevant patents, it doesn't even guarantee that members will actually disclose all their IP rights. Requiring disclosure without licensing also triggers antitrust problems, as cases like Dell Computer and Rambus demonstrate. All these problems largely disappear if the SSO imposes a licensing requirement, since nondisclosure is a successful anticompetitive strategy only if the IP owner can use its IP rights to hold up users of the standard.

Even when IP rights are properly disclosed, requiring disclosure without licensing creates a conundrum for the members of an SSO. Members have **two choices** in such a case: **adopt** the standard despite the IP right or **reject** the standard to avoid the effect of the IP right. In the former case, the disclosure obligation hasn't helped the members avoid the effect of the IP right at all. Indeed, they may actually be worse off, since they are now on notice that the IP owner has IP that rights cover a standard they intend to use. In the latter case, the SSO may have left itself vulnerable to antitrust attack for rejecting a proposed standard solely because it was covered by IP rights. Whether or not such an antitrust claim is well-grounded, the SSO is effectively behaving *ex post* as if it requires royalty-free licensing, and would almost certainly be better off committing to openness at the outset. ***

Decide Where Your Organization Falls on the Open-Closed Continuum

"Open" standards are trendy. Unfortunately, like "open" source code, there are various definitions of open standards. As a result, SSOs may be tempted to claim they are open when they aren't, to be open for some purposes but closed for others, or even to encourage openness without requiring it. Any of these options would almost certainly be a mistake. There is little to be gained from wishy-washy IP policies that "prefer" but do not mandate nonproprietary standards. Expectations will be raised and dashed; problems will ensue. An SSO is either committed to making its standards open and nonproprietary or it isn't. If it is, the only way the SSO can further that goal is by requiring assignment or royalty-free licensing of IP rights that cover the standard. ***

Permit Licenses that Control Fragmentation

One critique of mandatory licensing is that it may contribute to fragmentation. Fragmentation is frequently a problem for open standards. If no one owns the standard, users are generally free to modify it in whatever way they see fit. As a result, a single standard may soon "fork" into incompatible versions, defeating the purpose of standardization.... Reserving IP rights is one way to prevent fragmentation, because the IP owner can refuse to license incompatible versions. Conversely, compulsory licensing on reasonable and nondiscriminatory terms might be thought inimical to unified standards.

In fact, however, there are a number of ways SSOs can compel licensing to anyone who wants to use the standard and still prevent fragmentation.... At least one SSO requires that members assign their IP rights to the SSO, permitting the SSO to serve in effect as the trusted third party. The most obvious solution, however, is by contract. Reasonable and nondiscriminatory terms are generally thought to refer to royalty rates, but there is no reason an IP owner cannot require compatibility with an existing set of protocols as a condition of the license. Reasonable and nondiscriminatory licensing with such a term gives an IP owner the best of both worlds: the IP owner can control the technological development of a standard, but cannot prevent anyone from implementing that standard in a compliant way. And because a license can compel adherence to a particular set of protocols without demanding a royalty or otherwise restricting use, a nondiscriminatory

licensing provision of this sort will work both for open source and proprietary standards.

Give Content to the Reasonable and Nondiscriminatory Licensing Requirement

*** Virtually no SSO specifies the terms on which licenses must be granted beyond the vague requirement that they be "reasonable" and "nondiscriminatory." Indeed, some SSOs expressly forbid discussion of such issues when a standard is under consideration, presumably for fear of antitrust liability. Further, private licenses are normally confidential. The result is uncertainty over the cost and scope of patent licenses that may not prove much better than having no policy at all.

One solution to this problem is to have the SSO specify the royalty that will be charged for each IP right. But if "reasonable and nondiscriminatory" without more is too amorphous, specifying the royalty in advance is likely to be too rigid. Patents differ in their likely validity, their importance to the standard, and the ease with which they can be designed around. Further, standards differ in their importance and the price that can be charged for products or components that incorporate the standard. As a result, "one size fits all" is unlikely to work very well for patent licenses. Indeed, it may have the perverse result of encouraging members to list as many patents as possible that are conceivably relevant to a standard, hoping to increase their royalty rate through sheer quantity without any reference to quality.

I think there is middle ground between complete specification of royalties and abdication of all responsibility for determining them. In particular, there are several things that SSOs can do to help smooth the process of determining what royalties are reasonable and nondiscriminatory.

First, SSOs could require members who assert patents to make available to others a copy of all their licenses involving the patent. This would help potential licensees to ensure that the proffered licenses really were nondiscriminatory.

Second, SSOs could give some content to the nondiscrimination requirement, for example by specifying whether royalty rates must be identical for all parties, or whether potential licensees in different situations may be treated differently. One organization has even gone so far as to threaten to withdraw a standard where the patentee refused to license its IP except on terms the organization considered unreasonable.

Third, SSOs might be particularly motivated to prevent certain kinds of restrictive nonprice license terms such as grantback clauses and noncompetition agreements. On the other hand, they may want to permit reciprocal dealing requirements, so that patentees who submit a standard do not precommit to license their patents in the standard, only to find themselves without a good bargaining chip when sued by nonmembers with their own patents. Fourth, SSOs might set up some means of dispute resolution within the organization to help resolve royalty disagreements. Resolving reasonable royalty disputes within the SSO will almost certainly be quicker and cheaper than resorting to the courts. It may also permit the disputants to take advantage of the industry expertise that many SSOs have...

Finally, to prevent any dispute-resolution mechanism from being overrun by frivolous claims, SSOs should develop some mechanism for distinguishing IP that is truly necessary to the operation of the standard from IP that is peripheral. One possibility is to create an administrative sanction for baseless royalty claims.

Require Members to Evaluate and Comply with the Standard-Setting Organization's Policy ***

First, companies should think long and hard about whether they really want to belong to a particular SSO. Part of that calculus must be the effect of membership on the company's IP rights. Companies should have lawyers review the IP policy, determining what IP is covered, what search and disclosure obligations the company must undertake, what licenses they will commit to, and whether the company can withdraw from the SSO rather than forgo its IP rights. In rare circumstances a company might be well advised to avoid joining an SSO altogether because of its IP policy. In other cases the policy may not be fully thought out, and the SSO may be open to changing its policy. Even if the company decides that the benefits of joining the SSO outweigh any loss of IP rights, that decision should be made by people in the company who are aware of the issues, and not simply by any employee who decides to join an SSO.

Second, companies must ensure that they comply with the rules of any SSO that they join. The experience of Dell, Sun, Rambus, Unocal, and others strongly suggests that companies should bend over backwards to disclose IP rights in doubtful cases. But they can't do so unless

someone in a position to know about IP rights - almost certainly a lawyer or IP manager - is involved in the standard-setting process in at least a supervisory capacity. Companies must also ensure that they comply with any other obligations, such as a requirement that they disclose their licenses of covered patents. It isn't at all clear that most companies take participation in SSOs very seriously today.